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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,549	06/23/2003	Kenneth L. Levy	P0837	2418

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EXAMINER	
NUNEZ, JORDANY	
ART UNIT	**PAPER NUMBER**
2179	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/602,549	LEVY, KENNETH L.	
	Examiner	Art Unit	
	Jordany Núñez	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,23,25,27-30,33 and 35-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,23,25,27-30,33 and 35-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: the phrase "the content so as" should be changed to "the content" instead. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16, 23, 25, 27-30, 33, 35-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Schuman et al. (US6950532, hereinafter Schuman).

As to claim 1, Schuman shows:

A method of embedding identification data in video, the video comprising a plurality of video frames (figure 8), said method comprising:

embedding (e.g., writing effects and security info onto content media) the identification data (e.g., "[d]isruption content may have a multitude of new content") in a first video frame prior to distribution or projection of the video (column 7, lines 42-53) (e.g., "this information [...] may be carried in the digital film itself" and "the disruption may be pre-authored"), the embedded identification data being visually perceptible upon examination of the first frame (figure 8, column 6, lines 24-34);

selecting a second video frame (e.g., "generated images" means that more than one image is generated, and images can be "image frames"), wherein the first and second video frames are separate frames (column 6, lines 24-34);

and embedding the identification data in the second video frame prior to distribution or projection of the content so as (column 7, lines 42-52), the embedded identification data being visually perceptible upon examination of the second frame, wherein the identification data is generally imperceptible upon real-time rendering of the video (e.g., "human eye many not detect them") (figure 8, column 6, lines 24-34).

As to claim 2, Schuman shows:

The method of claim 1, wherein the selecting comprising selecting the second frame so that the repetition of the embedded identification data is imperceptible to the human conscious mind when rendered (e.g., "human eye many not detect them") (column 6, lines 24-34).

As to claim 3, Schuman shows:

The method of claim 1, wherein the identification data is embedded in the same frame location in each of the first and second frames (e.g., if a human is to perceive a message, the message has to be in substantially the same location from one frame to the next) (column 6, lines 58-67).

As to claim 4, Schuman shows:

A detection method for the video embedded according to claim 1, comprising visually inspecting the first or second frames (e.g., "generated images may be captured [...] creating anomalous images") (figure 8, column 6, lines 32-43).

As to claim 5, Schuman shows:

A detection method for the video embedded according to claim 1, comprising providing device-aided character recognition of the first or second frames to detect the identification data frames (e.g., humanly perceiving the message) (column 6, lines 58-67).

As to claim 6, Schuman shows:

The method of claim 1 wherein the identification data is embedded in each of the first and second frames in the form of a digital watermark, yet the embedded digital watermarks remain visually perceptible upon examination of the first frame and second frame (column 6, lines 57-63).

As to claim 7, Schuman shows:

The method of claim 6, wherein the watermark visibility is due at least in part to watermark signal strength or intensity (column 6, lines 28-36 and lines 57-63).

As to claim 8, Schuman shows:

The method of claim 2, wherein the second frame is selected so that the repetition of the embedded identification data is imperceptible to the unconscious human mind (e.g., "human eye many not detect them") (column 6, lines 24-34).

As to claim 9, Schuman shows:

The method of claim 1, wherein the identification data comprise at least one of text, numbers, codes, images or graphics (column 6, lines 58-63).

As to claim 10, Schuman shows:

The method of claim 3, wherein the same location comprises a window (e.g., image frames) (column 6, lines 24-34).

As to claim 11, Schuman shows:

The method of claim 1, wherein the identification data comprise a plurality of identifiers (column 6, lines 58-63).

As to claim 12, Schuman shows:

The method of claim 11, wherein each of the plurality of identifiers (e.g., text or logos) is embedded to be spatially located in a separate frame location (e.g., "mark the content with messages") with respect to each other (column 6, lines 58-67).

As to claim 13, Schuman shows:

The method of claim 12, wherein the separate frame locations are the same for each of the first frame and second frames (e.g., if a human is to perceive a message, the message has to be in substantially the same location from one frame to the next) (column 6, lines 58-67).

As to claim 14, Schuman shows:

The method of claim 11, wherein the plurality of identifiers comprise at least two identifications (e.g., advertisement) selected from a group comprising: a content identification (e.g., text [...] identifying content), a distributor identification (e.g., logo), copy restriction information (e.g., "copy protected"), and an exhibition identification (e.g., "time of the event") (column 6, line 58 to column 7, line 4).

As to claim 15, Schuman shows:

The method of claim 1, wherein the identification data comprises at least one identification selected from a group of identifications comprising: content identification, a distributor identification, copy restriction information, and an exhibition identification (column 6, lines 58-67).

As to claim 16, Schuman shows:

A detection method for the video embedded according to claim 1, comprising averaging a plurality of the video frames including the first and second frames, wherein the averaging improves the signal to

noise ratio of the identification data to video content (e.g., disruption content is inserted so that it " becomes visible when played [...] due to temporal expansion" when reconstructed, thus "improve[ing] the signal to noise ratio of the identification data") (column 6, lines 33-43).

As to claim 23, Schuman shows:

A method of marking content with auxiliary data, the method characterized in that the auxiliary data is embedded prior to distribution or projection of the video (column 7, lines 42-52) to be humanly perceptible if examined in a finite segment or frame of the content (e.g., generated images may contain disruption content), but is embedded so as to be humanly imperceptible when examined as the content is rendered in real-time (e.g., "human eye many not detect them") (figure 8, column 6, lines 24-34).

As to claims 25, 38 Schuman shows:

wherein the content comprises video (figure 8, "content media").

As to claim 27, Schuman shows:

A method of steganographically hiding data (e.g., watermarks) in media content (column 3, lines 42-49), wherein the media content comprises a plurality of segments including masking content (e.g., generated images) (column 3, lines 20-22), said method being characterized in that

at least two of the media segments are provided with the data (e.g., generated images) (column 3, lines 20-22) prior to distribution or projection of the video (column 7, lines 42-52),

wherein the data comprises humanly perceptible data (e.g., "inserting a humán perceivable image") (column 3, lines 42-49), and

wherein the data remains perceptible upon individual examination of the at least two media segments but consciously imperceptible as the media content is rendered in real time since the data is below a perceptual threshold due to the masking content (column 6, lines 32-40).

As to claim 28, Schuman shows:

The method of claim 27 wherein the media content comprises video (e.g., generated images) (column 3, lines 20-22), the plurality of segments comprises video frames (e.g., image frames) (column 6, lines 24-34) and the masking content comprises video frames (e.g., "spaced marks [...] spaced so as to coincide") without the data (column 6, lines 16-24).

As to claim 29, Schuman shows:

The method of claim 28, wherein the data comprises an image of at least one of a hexadecimal number, binary number or decimal number (e.g., date) (column 6, lines 58-67)..

As to claim 30, Schuman shows:

The method of claim 28, wherein the data comprises an image of text (column 6, lines 58-67).

As to claim 33, Schuman shows:

A detector to detect the data provided according to claim 28, wherein the detector averages a plurality of the video frames so that the provided data becomes consciously perceptible (column 3, lines 43-49).

As to claims 35, 39, Schuman shows:

The method of claim 27 wherein the auxiliary data comprises an identifier comprising l's and 0' s, where the l's are embedded in the content through modification to content data (column 7, lines 42-52) (inherent, since a digital film is comprised of zeros and ones).

As to claim 36, Schuman shows:

The method of claim 35 wherein the O's are represented in the content through the absence of modification to content data (column 7, lines 42-52) (inherent, since a digital film is comprised of zeros and ones).

As to claim 37, Schuman shows:

A method of marking content with auxiliary data comprising:

obtaining content;

embedding auxiliary data in the content through modifications of portions of the content, the modifications occurring prior to distribution or projection of the content, the modifications being humanly perceptible if examined in a finite segment or frame of the content, but provided in the content so as to be humanly imperceptible when examined as the content is rendered or projected in real-time; and

distributing or projecting the content (column 7, lines 42-52) (the film is made, the disruption content is pre-authored into the digital film, and then it is distributed).

As to claim 40, Schuman shows:

A detecting method comprising:

obtaining content,

the content including auxiliary data embedded therein,

the embedding being accomplished through modifications of portions of the content,

the modifications occurring prior to obtaining the content (the film is made, the disruption content is pre-authored into the digital film, and then it is distributed),

the modifications being humanly perceptible if examined in a finite segment or frame of the content, but provided in the content so as to be humanly imperceptible when examined as the content is rendered or projected in real-time (e.g., "human eye many not detect them");

averaging a plurality of content portions; and

detecting the auxiliary data from data representing averaged content portions, the auxiliary data being relatively more detectable from the data representing averaged content portions compared to individual portions including the auxiliary data (e.g., disruption content is inserted so that it " becomes visible when played [...] due to temporal expansion" when reconstructed, thus "improving the signal to noise ratio of the identification data") (column 6, lines 24-34; column 6, lines 33-43; column 7, lines 42-52).

References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.

Response to Arguments

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, Applicant's arguments with respect to the above claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Van Wie et al.	[U.S. 6,449,367]
Shimizu	[U.S. 6,370,272]
Rhoads	[U.S. 5,636,292]
Ashizaki et al.	[U.S. 6,829,430]
Vynne et al.	[U.S. 5,960,081]
Rhoads	[U.S. 5,841,978]

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordany Núñez whose telephone number is (571)272-2753. The examiner can normally be reached on Monday Through Thursday 9am-7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571)272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN
5/22/2007

WEILUN LO
SUPERVISORY PATENT EXAMINER